

0590  
1011

OIPE

#3

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/863,063

DATE: 10/04/2001

TIME: 17:42:45

Input Set : A:\N-7088us.app

Output Set: N:\CRF3\10042001\I863063.raw

3 <110> APPLICANT: GREENSTEIN, DAVID  
 4 MILLER, MICHAEL A.  
 6 <120> TITLE OF INVENTION: COMPOSITIONS AND METHODS OF NEMATODE CONTROL  
 8 <130> FILE REFERENCE: N-7088  
 10 <140> CURRENT APPLICATION NUMBER: 09/863,063  
 C--> 11 <141> CURRENT FILING DATE: 2001-09-21  
 13 <150> PRIOR APPLICATION NUMBER: 60/205,829  
 14 <151> PRIOR FILING DATE: 2000-05-19  
 16 <150> PRIOR APPLICATION NUMBER: 60/274,358  
 17 <151> PRIOR FILING DATE: 2001-03-08  
 19 <160> NUMBER OF SEQ ID NOS: 33  
 21 <170> SOFTWARE: PatentIn Ver. 2.1  
 23 <210> SEQ ID NO: 1  
 24 <211> LENGTH: 126  
 25 <212> TYPE: PRT  
 26 <213> ORGANISM: Caenorhabditis elegans  
 28 <400> SEQUENCE: 1  
 29 Ala Gln Ser Val Pro Pro Gly Asp Ile Gln Thr Gln Pro Gly Thr Lys  
 30 1 5 10 15  
 32 Ile Val Phe Asn Ala Pro Tyr Asp Asp Lys His Thr Tyr His Ile Lys  
 33 20 25 30  
 35 Val Ile Asn Ser Ser Ala Arg Arg Ile Gly Tyr Gly Ile Lys Thr Thr  
 36 35 40 45  
 38 Asn Met Lys Arg Leu Gly Val Asp Pro Pro Cys Gly Val Leu Asp Pro  
 39 50 55 60  
 41 Lys Glu Ala Val Leu Leu Ala Val Ser Cys Asp Ala Phe Ala Phe Gly  
 42 65 70 75 80  
 44 Gln Glu Asp Thr Asn Asn Asp Arg Ile Thr Val Glu Trp Thr Asn Thr  
 45 85 90 95  
 47 Pro Asp Gly Ala Ala Lys Gln Phe Arg Arg Glu Trp Phe Gln Gly Asp  
 48 100 105 110  
 50 Gly Met Val Arg Arg Lys Asn Leu Pro Ile Glu Tyr Asn Pro  
 51 115 120 125  
 54 <210> SEQ ID NO: 2  
 55 <211> LENGTH: 126  
 56 <212> TYPE: PRT  
 57 <213> ORGANISM: Caenorhabditis elegans  
 59 <400> SEQUENCE: 2  
 60 Ala Gln Ser Val Pro Pro Gly Asp Ile Gln Thr Gln Pro Gly Thr Lys  
 61 1 5 10 15  
 63 Ile Val Phe Asn Ala Pro Tyr Asp Asp Lys His Thr Tyr His Ile Lys  
 64 20 25 30  
 66 Val Ile Asn Ser Ser Ala Arg Arg Ile Gly Tyr Gly Ile Lys Thr Thr  
 67 35 40 45  
 69 Asn Met Lys Arg Leu Gly Val Asp Pro Pro Cys Gly Val Leu Asp Pro  
 70 50 55 60  
 72 Lys Glu Ala Val Leu Leu Ala Val Ser Cys Asp Ala Phe Ala Phe Gly

ENTERED

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/863,063

DATE: 10/04/2001

TIME: 17:42:45

Input Set : A:\N-7088us.app

Output Set: N:\CRF3\10042001\I863063.raw

```

73 65              70              75              80
75 Gln Glu Asp Thr Asn Asn Asp Arg Ile Thr Val Glu Trp Thr Asn Thr
76              85              90              95
78 Pro Asp Gly Ala Ala Arg Gln Phe Arg Arg Glu Trp Phe Gln Gly Asp
79              100             105             110
81 Gly Met Val Arg Arg Lys Asn Leu Pro Ile Glu Tyr Asn Pro
82              115             120             125
85 <210> SEQ ID NO: 3
86 <211> LENGTH: 126
87 <212> TYPE: PRT
88 <213> ORGANISM: Caenorhabditis elegans
90 <400> SEQUENCE: 3
91 Ala Gln Ser Val Pro Pro Gly Asp Ile Gln Thr Gln Pro Asn Ala Lys
92 1              5              10              15
94 Ile Val Phe Asn Ala Pro Tyr Asp Asp Lys His Thr Tyr His Ile Lys
95              20              25              30
97 Val Ile Asn Ser Ser Ala Arg Arg Ile Gly Tyr Gly Ile Lys Thr Thr
98              35              40              45
100 Asn Met Lys Arg Leu Gly Val Asp Pro Pro Cys Gly Val Leu Asp Pro
101              50              55              60
103 Lys Glu Ala Val Leu Leu Ala Val Ser Cys Asp Ala Phe Ala Phe Gly
104 65             70             75             80
106 Gln Glu Asp Thr Asn Asn Asp Arg Ile Thr Val Glu Trp Thr Asn Thr
107              85              90              95
109 Pro Asp Gly Ala Ala Lys Gln Phe Arg Arg Glu Trp Phe Gln Gly Asp
110              100             105             110
112 Gly Met Val Arg Arg Lys Asn Leu Pro Ile Glu Tyr Asn Pro
113              115             120             125
116 <210> SEQ ID NO: 4
117 <211> LENGTH: 126
118 <212> TYPE: PRT
119 <213> ORGANISM: Caenorhabditis elegans
121 <400> SEQUENCE: 4
122 Ala Gln Ser Val Pro Pro Gly Asp Ile Gln Thr Gln Pro Asn Ala Lys
123 1              5              10              15
125 Ile Val Phe Asn Ala Pro Tyr Asp Asp Lys His Thr Tyr His Ile Lys
126              20              25              30
128 Val Ile Asn Ser Ser Ala Arg Arg Ile Gly Tyr Gly Ile Lys Thr Thr
129              35              40              45
131 Asn Met Lys Arg Leu Gly Val Asp Pro Pro Cys Gly Val Leu Asp Pro
132              50              55              60
134 Lys Glu Ala Val Leu Leu Ala Val Ser Cys Asp Ala Phe Ala Phe Gly
135 65             70             75             80
137 Gln Glu Asp Thr Asn Asn Asp Arg Ile Thr Val Glu Trp Thr Asn Thr
138              85              90              95
140 Pro Asp Gly Ala Ala Lys Gln Phe Arg Arg Glu Trp Phe Gln Gly Asp
141              100             105             110
143 Gly Met Val Arg Arg Lys Asn Leu Pro Ile Glu Tyr Asn Pro
144              115             120             125

```

## RAW SEQUENCE LISTING

DATE: 10/04/2001

PATENT APPLICATION: US/09/863,063

TIME: 17:42:45

Input Set : A:\N-7088us.app

Output Set: N:\CRF3\10042001\I863063.raw

```

147 <210> SEQ ID NO: 5
148 <211> LENGTH: 126
149 <212> TYPE: PRT
150 <213> ORGANISM: Caenorhabditis elegans
152 <400> SEQUENCE: 5
153 Ala Gln Ser Val Pro Pro Gly Asp Ile Gln Thr Gln Pro Gly Thr Lys
154   1           5           10           15
156 Ile Val Phe Asn Ala Pro Tyr Asp Asp Lys His Thr Asp His Ile Lys
157           20           25           30
159 Val Ile Asn Ser Ser Ala Arg Arg Ile Gly Tyr Gly Ile Lys Thr Thr
160           35           40           45
162 Asn Met Lys Arg Leu Gly Val Asp Pro Pro Cys Gly Val Phe Asp Pro
163           50           55           60
165 Lys Glu Ala Val Leu Leu Ala Val Ser Cys Asp Ala Phe Ala Phe Gly
166   65           70           75           80
168 Gln Glu Asp Thr Asn Asn Asp Arg Ile Thr Val Glu Trp Thr Asn Thr
169           85           90           95
171 Pro Asp Gly Ala Ala Lys Gln Phe Arg Arg Glu Trp Phe Gln Gly Asp
172           100          105          110
174 Gly Met Val Arg Arg Lys Asn Leu Pro Ile Glu Tyr Asn Pro
175           115          120          125
178 <210> SEQ ID NO: 6
179 <211> LENGTH: 126
180 <212> TYPE: PRT
181 <213> ORGANISM: Caenorhabditis elegans
183 <400> SEQUENCE: 6
184 Ala Gln Ser Val Pro Pro Gly Asp Ile Gln Thr Gln Pro Gly Thr Lys
185   1           5           10           15
187 Ile Val Phe Asn Ala Pro Tyr Asp Asp Lys His Thr Tyr His Ile Lys
188           20           25           30
190 Val Ile Asn Ser Ser Ala Arg Arg Ile Gly Tyr Gly Ile Lys Thr Ile
191           35           40           45
193 Asn Met Lys Arg Leu Gly Val Asp Pro Pro Cys Gly Val Leu Asp Pro
194           50           55           60
196 Lys Glu Ala Val Leu Leu Ala Val Ser Cys Asp Ala Phe Ala Phe Gly
197   65           70           75           80
199 Gln Glu Asp Thr Asn Asn Asp Arg Ile Thr Val Glu Trp Thr Asn Thr
200           85           90           95
202 Pro Asp Gly Ala Ala Lys Gln Phe Arg Arg Glu Trp Phe Gln Gly Asp
203           100          105          110
205 Gly Met Val Arg Arg Lys Asn Leu Pro Ile Glu Tyr Asn Pro
206           115          120          125
209 <210> SEQ ID NO: 7
210 <211> LENGTH: 126
211 <212> TYPE: PRT
212 <213> ORGANISM: Caenorhabditis elegans
214 <400> SEQUENCE: 7
215 Ala Gln Ser Val Pro Pro Gly Asp Ile Gln Thr Gln Pro Gly Thr Lys
216   1           5           10           15

```

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/863,063

DATE: 10/04/2001

TIME: 17:42:45

Input Set : A:\N-7088us.app

Output Set: N:\CRF3\10042001\I863063.raw

```

218 Ile Val Phe Asn Ala Pro Tyr Asp Asp Lys His Thr Tyr His Ile Lys
219           20           25           30
221 Val Ile Asn Ser Ser Ala Arg Arg Ile Val Tyr Gly Ile Lys Thr Thr
222           35           40           45
224 Asn Met Lys Arg Leu Gly Val Asp Pro Pro Cys Gly Val Leu Asp Pro
225           50           55           60
227 Lys Glu Ala Val Leu Leu Ala Val Ser Cys Asp Ala Phe Ala Phe Gly
228 65           70           75           80
230 Gln Glu Asp Thr Asn Asn Asp Arg Ile Thr Val Glu Trp Thr Asn Thr
231           85           90           95
233 Pro Asp Gly Ala Ala Lys Gln Phe Arg Arg Glu Trp Phe Gln Gly Asp
234           100          105          110
236 Gly Met Val Arg Arg Lys Asn Leu Pro Ile Glu Tyr Asn Pro
237           115          120          125
240 <210> SEQ ID NO: 8
241 <211> LENGTH: 126
242 <212> TYPE: PRT
243 <213> ORGANISM: Caenorhabditis elegans
245 <400> SEQUENCE: 8
246 Ala Gln Ser Val Pro Pro Gly Asp Ile Gln Thr Gln Pro Gly Thr Lys
247 1           5           10           15
249 Ile Val Phe Asn Ala Pro Tyr Asp Asp Lys His Thr Tyr Arg Ile Lys
250           20           25           30
252 Val Ile Asn Ser Ser Ala Arg Arg Ile Gly Tyr Gly Ile Lys Thr Thr
253           35           40           45
255 Asn Met Lys Arg Leu Gly Val Asp Pro Pro Cys Gly Val Leu Asp Pro
256           50           55           60
258 Lys Glu Ala Val Leu Leu Ala Val Ser Cys Asp Ala Phe Ala Phe Gly
259 65           70           75           80
261 Gln Glu Asp Thr Asn Asn Asp Arg Ile Thr Val Glu Trp Thr Asn Thr
262           85           90           95
264 Pro Asp Gly Ala Ala Lys Gln Phe Arg Arg Glu Trp Phe Gln Gly Asp
265           100          105          110
267 Gly Met Val Arg Arg Lys Asn Leu Pro Ile Glu Tyr Asn Pro
268           115          120          125
271 <210> SEQ ID NO: 9
272 <211> LENGTH: 126
273 <212> TYPE: PRT
274 <213> ORGANISM: Caenorhabditis elegans
276 <400> SEQUENCE: 9
277 Ala Gln Ser Val Pro Pro Gly Asp Ile Gln Thr Gln Pro Gly Thr Lys
278 1           5           10           15
280 Ile Val Phe Asn Ala Pro Tyr Asp Asp Lys His Thr Tyr His Ile Lys
281           20           25           30
283 Val Ile Asn Ser Ser Ala Arg Arg Ile Gly Tyr Gly Ile Lys Thr Thr
284           35           40           45
286 Asn Met Lys Arg Leu Gly Val Asp Pro Pro Cys Gly Val Leu Asp Pro
287           50           55           60
289 Lys Glu Ala Val Leu Leu Ala Val Ser Cys Asp Ala Phe Ala Phe Gly

```

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/863,063

DATE: 10/04/2001

TIME: 17:42:45

Input Set : A:\N-7088us.app

Output Set: N:\CRF3\10042001\I863063.raw

```

290 65              70              75              80
292 Gln Glu Asp Thr Asn Asn Asp Arg Ile Thr Val Glu Trp Thr Asn Thr
293              85              90              95
295 Pro Asp Gly Ala Ala Lys Gln Phe Arg Arg Glu Trp Phe Gln Gly Asp
296              100              105              110
298 Gly Met Ala Arg Arg Lys Asn Leu Pro Ile Glu Tyr Asn Pro
299              115              120              125
302 <210> SEQ ID NO: 10
303 <211> LENGTH: 126
304 <212> TYPE: PRT
305 <213> ORGANISM: Caenorhabditis elegans
307 <400> SEQUENCE: 10
308 Ala Gln Ser Val Pro Pro Gly Asp Ile Gln Thr Gln Pro Gly Thr Lys
309 1              5              10              15
311 Ile Val Phe Asn Ala Pro Tyr Asp Asp Lys His Thr Tyr His Ile Lys
312              20              25              30
314 Val Ile Asn Ser Ser Ala Arg Arg Ile Gly Tyr Gly Ile Lys Thr Thr
315              35              40              45
317 Asn Met Lys Arg Leu Gly Val Asp Pro Pro Cys Gly Val Leu Asp Pro
318              50              55              60
320 Lys Glu Ala Val Leu Leu Ala Val Ser Cys Asp Ala Phe Ala Phe Gly
321 65              70              75              80
323 Gln Glu Asp Thr Asn Asn Asp Arg Ile Thr Ile Glu Trp Thr Asn Thr
324              85              90              95
326 Pro Asp Gly Ala Ala Lys Gln Phe Arg Arg Glu Trp Phe Gln Gly Asp
327              100              105              110
329 Gly Met Val Arg Arg Lys Asn Leu Pro Ile Glu Tyr Asn Pro
330              115              120              125
333 <210> SEQ ID NO: 11
334 <211> LENGTH: 126
335 <212> TYPE: PRT
336 <213> ORGANISM: Ascaris suum
338 <400> SEQUENCE: 11
339 Ala Gln Ser Val Pro Pro Gly Asp Ile Asn Thr Gln Pro Ser Gln Lys
340 1              5              10              15
342 Ile Val Phe Asn Ala Pro Tyr Asp Asp Lys His Thr Tyr His Ile Lys
343              20              25              30
345 Ile Thr Asn Ala Gly Gly Arg Arg Ile Gly Trp Ala Ile Lys Thr Thr
346              35              40              45
348 Asn Met Arg Arg Leu Ser Val Asp Pro Pro Cys Gly Val Leu Asp Pro
349              50              55              60
351 Lys Glu Lys Val Leu Met Ala Val Ser Cys Asp Thr Phe Asn Ala Ala
352 65              70              75              80
354 Thr Glu Asp Leu Asn Asn Asp Arg Ile Thr Ile Glu Trp Thr Asn Thr
355              85              90              95
357 Pro Asp Gly Ala Ala Lys Gln Phe Arg Arg Glu Trp Phe Gln Gly Asp
358              100              105              110
360 Gly Met Val Arg Arg Lys Asn Leu Pro Ile Glu Tyr Asn Leu
361              115              120              125

```

VERIFICATION SUMMARY  
PATENT APPLICATION: US/09/863,063

DATE: 10/04/2001  
TIME: 17:42:46

Input Set : A:\N-7088us.app  
Output Set: N:\CRF3\10042001\I863063.raw

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date